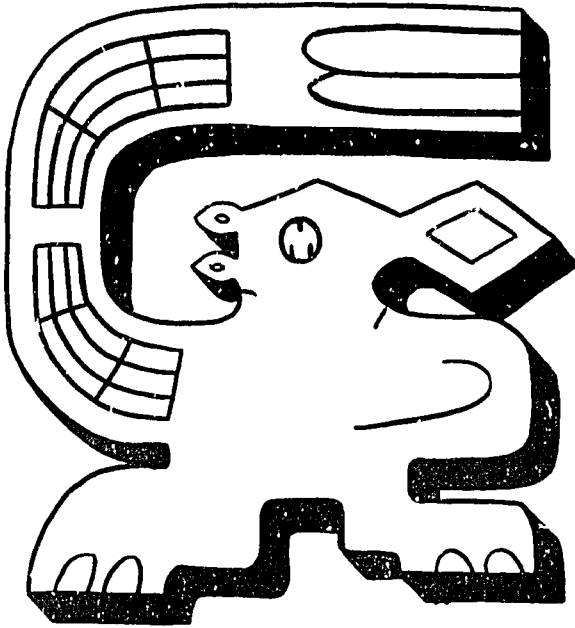


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Migrant Labour And Economic Development

by Marvin P. Miracle and Sara S. Berry

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Reference Center.
Room 1656 NS

LAND TENURE CENTER
University of Wisconsin - Madison
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MIGRANT LABOUR AND ECONOMIC DEVELOPMENT

By MARVIN P. MIRACLE and SARA S. BERRY

MOVEMENT of economically productive individuals has been the focus of a large uneven literature which has yielded little that is useful for economic planning or policy-making in developing countries. The largest of three separate streams in this literature—that on emigration—has examined some of the relationships between emigration and economic growth, with particular attention to the effect of international migration on investment cycles [Thomas, 1954, 1958, and 1961]. However, most of this discussion has drawn on the historical record of migration from Western Europe to North America and Australia, and has ignored the experience of other developing areas. The recent interest in human capital, and particularly in the 'brain drain', has prompted reassessment of the effects of emigration and has sparked new effort to specify the conditions under which emigration can foster growth, but so far this literature, too, makes little or no attempt to take into account the evidence from Latin America, Africa, or Asia [Kindleberger, Sept. 1965; Grubel and Scott, 1966; Thomas, 1967; Michalopoulos, 1968].

A second body of literature is on migrant labour,¹ which is usually assumed to be involved in only a temporary sojourn away from home, even though part of the supply of migrant labourers—and in some developing countries a significant segment of it—in fact emigrates. Much of the literature on migrant labour is written by non-economists who typically see it as a social evil [United Nations, 1953, ch. XVI; Schapera, 1947; Gulliver, 1955; Houghton, 1960; Watson, 1961]. Economists writing on migrant labour in developing economies have been primarily concerned with the problem of securing a stable labour force for industrial development [Galenson, 1962; Elkan, 1959 and 1960; Moore and Feldman, 1960]. Even those who have attempted to evaluate the economic efficiency of migrant labour have generally done so in static terms. Thus, several authors have viewed the 'system' of migrant labour as a one-shot adjustment to the economic opportunities afforded by, e.g., colonial penetration,

¹ There are notable numbers of migrant labourers in most developing countries. They are likely to be of considerable importance wherever farmers grow export crops such as cocoa, coffee, and cotton, which require large amounts of labour seasonally. Migrant labour is conspicuous in all of the forty-odd countries of tropical Africa and a great deal of the existing literature has been motivated by African problems [see Kuper, 1966, and Panofsky, 1961 and 1963 for helpful bibliographies; Davison, 1957, provides a summary of statistical data not readily available]. Migrant labour is also important, however, in much of Latin America and Asia [United Nations, 1953, pp. 312-13].

rather than as a variable interacting with other economic and non-economic variables over time to generate different rates and patterns of economic development [Berg, 1965; Barber, 1960 and 1961; Elkan, 1959 and 1960; Mitchell, 1961; Moses *et al.*, 1967].

The third stream of literature is that on rural-urban migration and, as with migrant labour, much of what has been done is by non-economists who are preoccupied with social and political problems that can be created by rural-urban migration. Economic analysis has been largely limited to a controversy about whether the amount and kind of disguised unemployment in rural areas is such that labour can be transferred from the agricultural to the non-agricultural sectors—a transfer that involves mainly, if not entirely, a rural-urban shift of manpower—without reducing agricultural output [Lewis, 1954; Jorgenson, 1961, 1966, and 1967; Fei and Ranis, 1961 and 1964; Kao *et al.*, 1964; Myrdal, 1968, Appendix 6].

The purpose of this paper is to argue that (1) the movement of what has traditionally been called 'migrant labour' in and between developing countries can be important for development in a number of ways given little or no attention thus far in the literature, and (2) the impact of labour movements varies enormously from country to country and area to area, depending particularly on the length of absence of the labourer from his home area and on the similarities and differences between the economic and physical environments of the migrant's home and the area or areas in which he works while away from home.

I. The movement of economically productive individuals

The effect of migrant labour on economic development can be seen more clearly if it is treated as a special case of the movement of economically productive individuals. We define as mobile and economically productive all individuals who move from their home area and while away from it receive income as a result of their activity or wealth, or individuals whose absence from home significantly affects production or productivity there whether or not they receive income while absent. Thus, the movement of economically productive individuals encompasses a wide variety of activities. For example, workers may migrate seasonally, for a year or two, for the duration of their working lives, or permanently; they may move between similar or different physical environments; they may or may not cross national boundaries; they may engage in similar or different occupations while away than they did at home.

Movements of economically active individuals across economically significant political boundaries—which may range from the perimeter of a common market to a provincial or township boundary—are of special interest because of possible implications for government revenue and the

demand for public goods and services. This is particularly true of emigration, the special case in which migrants cross national boundaries intending to settle in the host area. In other respects, however, the economic effects of emigration are not different in kind from intra-national movements across economically significant boundaries with intent to settle. Both emigration and intra-national movement with intent to settle in the host area (economy) stand in sharp contrast with inter- or intra-national migration with intent not to settle in the host area (economy) because the length of absence from the home area (economy) is likely to be longer; because emigrants are more likely to be accompanied—or if not accompanied, later joined—by economically inactive individuals;¹ because the probability that the movement will involve transfer of physical capital from the supplying to the host area can be expected to be considerably higher; and because the amount of human capital transferred to the host area is likely to be larger. (As we will argue presently, the home area is likely on balance to gain rather than lose both physical and human capital so long as the migrant does not settle permanently outside his home area.)

Empirically it is often impossible to distinguish clearly between temporary migrants and emigrants not only because one cannot get reasonably reliable information on a migrant's intentions regarding settlement in the host area, but also because his intentions may change at any time. On the one hand, many declared emigrants in fact return home,² while on the other, there are sizeable numbers of migrants who claim they plan to return home eventually, but never do. In fact, the very fuzziness of the boundary between migration and emigration underlines the fact that they are not separate and unrelated patterns of behaviour. Conceptually, it is more fruitful to regard them as points on a continuum, representing different lengths of an economically productive individual's absence from home. The position of a given individual on that continuum may vary over time, depending on circumstances in his home area and his experiences while away. Therefore, in analysing the implications for economic development of the movement of economically productive individuals, we shall treat the duration of a migrant's absence as one variable which interacts with other characteristics of migration and with environmental factors to produce different economic effects.

The net effect on economic development of a particular movement of

¹ Some of the dependents of any given emigrant are likely to be economically inactive. All children under five will almost certainly be in this category.

² Kindleberger points out that between 1897 and 1918 the number of one-time immigrants leaving the United States was almost half as large as arrivals (47 per cent) and that a number of so-called immigrants, particularly a large proportion of Italian workers, returned home seasonally [Kindleberger, Sept. 1965, p. 650], and according to Fleisher the same is true of an important segment of the Puerto Rican 'emigrants' coming to the United States [Fleisher, 1961, pp. 148–51].

economically productive individuals may be analysed in terms of changes in production, productivity, and consumption in both the labour-supplying (home) and the labour-receiving (host) areas. Such changes may come about not only through variations in the relative supplies of productive factors and in the volume of consumer demand in the home and host areas, but also through transfers of attitudes, institutions, and techniques of production. For example, migrants may have various productive skills, acquired through their agricultural, commercial, or manufacturing activities at home, which enable them to offer more than just additions to the supply of unskilled labour in the host area. Similarly, while employed in the host area, they may develop new wants and expectations or learn new skills which can help to transform their home economies when they return.

Moreover, movements of economically productive individuals may help to induce changes in economic activities other than those in which they are directly employed. Induced activities of this sort might include changes in the output of goods complementary to those produced by the migrants, changes in the rate and composition of capital formation in either the home or the host areas; or changes in institutions affecting the ownership and employment of productive factors (e.g. land tenure).

Both the direction and the magnitude of these effects are likely to vary from one pattern of migration to another. In particular, as we shall argue in more detail below, the length of migrants' absence from home, the similarities or differences in the physical and economic environments of the home and host areas, and the extent to which the length of absence is correlated with the time pattern of employment opportunities in the home and host areas, will have important implications for the effects of labour movements on economic development. At present, available data are too few and unreliable to warrant a systematic attempt to quantify these effects. Our objective is rather to identify the relationships between movements of economically productive individuals and economic development and to show with illustrations from tropical Africa and Latin America—the areas we know best—how these relationships are affected by different patterns of migration. For purposes of exposition, we have divided our discussion into two parts—one on the migrant's home economy (whether national, regional, or tribal), and one on the host economy in which he works while away from home.

II. The impact on the supplying economy

There seems to be an implicit assumption in the literature (especially by those who write about non-economic effects of labour migration) that whether or not the net economic effect is positive (considering effects on both the host and the supplying economies), most of the impact on the

supplying economy is negative. As we shall see, the economic impact of migrants is very much a function of the economic characteristics of the supplying economy and the host economies with which it is linked by migrants. One can readily specify combinations of economic conditions under which the net economic impact is either positive or negative.

For analytical purposes, the effects of migration on the home economy may be divided into those which occur while the migrant is away and those attendant upon his return. This classification is more useful than the conventional distinction between short- and long-run effects. On the one hand, some effects of migration depend directly on the migrant's physical presence in or absence from the home economy. On the other hand, most migrant labourers in developing countries leave agricultural enterprises where labour is a critical determinant of production. Hence the scale of production may be altered the day the migrant leaves home and the short run may not exist, or if it exists, may be so brief that it is uninteresting.

A. Effects while labourers are away

A large proportion of migrants in developing economies are unskilled males whose alternative employment is in the agricultural sector of the supplying economy. The immediate effect of their absence is primarily a function of how long they are gone; the amount and kind of work open to them during the same period in the supplying economy had they not left; the adequacy of the labour supply in their home area after their departure; and the effect of the departure of migrants on real wages in the supplying area.

(a) *Length of absence*

Where migrants are gone for two or more years without return, as seems commonly to be the case in areas supplying the cocoa belt of Brazil with labour, and in parts of Africa,¹ there is much more likely to be a negative impact on production, *ceteris paribus*, than if a large proportion of migrants migrate only during the slack season, as seems to be the case in other parts of Africa, Guatemala, and India [Berg, 1965, p. 164; Skinner, 1965, pp. 67-8; Schmid, 1958, pp. 8-9; United Nations, 1953, p. 312; Gulliver, 1955, p. 3; Schapera, 1947, pp. 54-5]. However, other things are often not equal. In Upper Volta, for example, where Mossi men do much of the work in agriculture, output is likely to suffer if men stay away for longer than one dry season at a time, thus reducing the labour supply during the farming

¹ Based on a random sample of 22 cocoa farmers in Buerarema Município, Bahia, interviewed by Marvin Miracle in January 1966. For Africa see Mitchell, 1956; Lux, 1962, p. 191; Van Velsen, 1960, p. 267; Richards, 1954, pp. 137-9; Rouch, 1956, p. 80.

season.¹ On the other hand, in societies such as the Chowke of Angola or the Zande of Sudan, where women do all the agricultural work except clearing new land every few years, men may and do stay away for two or three years at a time, without adversely affecting agricultural output at home [Miracle, 1967, pp. 35-156]. Thus, the effects of a migrant's absence on production in his home economy depends on how closely the length of his absence is adjusted to the time pattern of the home economy's demand for his labour.² This demand depends in turn on a combination of ecological, technical, and institutional factors.

(b) *Production possibilities in the home economy*

A sojourn of a given duration will have a stronger impact, *ceteris paribus*, the greater the production possibilities forgone, which, in early phases of development when the bulk of the population is in agriculture, is in turn determined largely by climate and technology. The longer the growing season in supplying areas and the greater the number of crops that can be grown per year, the greater the potential production forgone is likely to be, other things being equal. Similarly, among the Mambwe of Zambia or the Tonga of Malawi, who grow crops under systems of rotational bush or forest fallow, a year's absence may not cost the home economy as much as it would in parts of the West African savannas, where farmers practise continuous cropping [Watson, 1958, ch. 2; Van Velsen, 1960, p. 27; Hunter, 1967, p. 102; Buchanan and Pugh, 1955, pp. 107 and 112]. In so far as producers can reduce their dependence on the climate, by methods such as irrigation, the timing of migrants' absences is less crucial for maintaining home production. This point is particularly relevant for large areas of Asia and the Malagasy Republic where rice is the dominant dietary staple and both irrigated and non-irrigated rice are commonly grown in the same country.

The absence of migrants may also reduce the supply of labour for non-agricultural activities in the home economy. The importance of livestock

¹ Thus, Mossi migrants try to be absent only during the dry season and to return home in time for the spring planting in late April or early May [Skinner, 1965, p. 68; Berg, 1965, p. 166]. However, studies both of the Mossi themselves and of the seasonal pattern of employing migrant labour in southern Ghana and the Ivory Coast show that many of them stay away longer, in order to take advantage of employment opportunities during the rainy season in the south [Berg, 1965, p. 166; Dupire, 1960, pp. 45, 138-9; Köbben, 1956, *passim*; Rouch, 1956, pp. 78-9].

Berg's assertion that 'climatic zones in West Africa are so ordered that the slack season in the savanna zones is the busy season along the southern coast . . . the period of inactivity in the savanna regions corresponds to the time of peak agricultural demands in the cocoa and coffee regions of the forest zone' does not seem to fit the facts [Berg, 1965, p. 164; cf. Galletti *et al.*, p. 304; Prothero, 1958, *passim*].

² The responsiveness of potential migrants to changes in relative returns to employment at home and abroad has been demonstrated for tobacco farmers in Malawi [Dean, 1965]. Similar conclusions have been advanced for other African peoples [Barber, 1960 and 1961; Ardener *et al.*, 1960; Gulliver, 1955; Lux, 1962; Moses *et al.*, 1967].

production, hunting, fishing, and gathering varies enormously from one area to another in developing countries. In parts of the Congo and Amazon basins hunting and gathering is still a major activity of many rural populations [Steward and Faron, 1959, pp. 292-8 and Gomez *et al.*, 1961]. In tropical Africa the majority of tribes are only very slightly involved with livestock production, but for some—such as the Plateau Tonga and Ila of Zambia; the Ruanda and Rundi of Rwanda and Burundi; the Ankole and Karamojong of Uganda; the Tswana of Botswana; and the Hausa of Nigeria and southern Niger—animal husbandry and crop production are both major activities [Schapera, 1947, pp. 164-5; Miracle, 1967, ch. 9; Dyson-Hudson, 1969, p. 78; Buchanan and Pugh, pp. 107 and 112]. Also, if migrants are absent during the dry season, their labour will not be available for producing handicrafts or various types of capital goods, such as huts, roads, wells, or fences [Berg, 1965, pp. 172-3; Skinner, 1965, p. 72; Richards, 1939, p. 298; Watson, 1958, p. 26].

(c) *The social organization of labour*

The effect of migrants' absence on output and productivity depends in part on the division of labour among various groups in the economy. As we mentioned above, the respective roles of men and women in agricultural production vary greatly, in tropical Africa, from tribe to tribe—a point which has frequently been overlooked in analyses of African economic systems [Barber, 1961, p. 72; Berg, 1965, p. 169; Baldwin, 1966, p. 169]. In general, the less often men are needed for agricultural activities the longer they may stay away without causing a decrease in home production. If women do all the agricultural work except clearing new land, the frequency of demand for male labour depends on the fertility of the soil and/or the techniques of cultivation used. Under continuous cropping, men would theoretically never be needed to clear new land, although in practice they may engage in other types of capital formation necessary to maintain soil fertility [Barber, 1960, p. 239; Richards, 1939, pp. 397-8; Watson, 1958, ch. 3]. Where bush fallow systems are used, the more fertile the soil the less often men are needed to clear new farms [Miracle, 1967, chs. 3-7]. Even in areas where men are needed every year, however, co-operative work groups may be able to clear or fertilize enough land so that the absence of some men does not reduce food output significantly [Watson, 1958, p. 34].

In addition to the division of labour between the sexes, institutions used to organize or combine labour in the home economy may influence the effect of migration on the structure as well as the volume of home production. Gulliver shows, for example, that through the efforts of women and co-operative work groups, the Ngoni managed to maintain food output

while migrants were absent, but largely abandoned the production of cash crops [Gulliver, 1955, p. 34; cf. Richards, 1939, pp. 397-8; Skinner, 1965, p. 70]. In other areas, however, the absence of male labourers has had the opposite effect. Under the French colonial administration in the Ivory Coast, 'warrant chiefs' were responsible for selecting individuals in their communities to work for the government or for European planters. According to Meillassoux, Guro chiefs took advantage of this system to become cash crop farmers. By exempting their own junior relatives from the *corvée*, the chiefs retained enough young men in their families to cultivate cocoa and coffee as well as food crops. (Since young men are expected to work without pay for the head of their family in Guro society, the chiefs received most of the resulting increase in family income which they used, in turn, to cement their status and authority in the community [Meillassoux, 1964, pp. 315-17].)

(d) *Welfare and productivity*

There are, clearly, some positive effects on the welfare of the households of migrants whether or not they send remittances home, if only because absent migrants make no claim on available supplies of clothing, shelter, and other durable goods. The effect on *per capita* food supplies is less clear, but may be positive. The migrant's absence is not likely to increase the household's foodstuff production while he is gone (unless his marginal physical product is negative, which seems unlikely).¹ Whether or not the household's production of foodstuffs declines depends, as we have seen, on the relationships between the techniques of production, the social organization of productive factors, and the duration of the migrant's absence.

Of course, even if the migrant's absence reduces household production, this may be offset by his economic activity in the host economy if he sends remittances home. On the other hand, either remittances or foodstuffs conceivably might be sent the other way—to the migrant. It would appear unlikely that many migrants would receive much money from home, but shipments of foodstuffs to migrants have been observed in parts of tropical Africa [Güsten, 1967, p. 290; Bauer, 1954, p. 380]. However, transportation costs are sufficiently high that migrants more than a few miles from home are likely to be sent only a fraction of what they would have consumed at home; thus, as a rule, migration is likely to reduce claims on home food supplies.

¹ If the marginal physical productivity of migrants is negative, as has not uncommonly been assumed in dual economy models, the effect of migration on productivity in the supplying area would be positive. However, considering that negative marginal physical product for labour in the agricultural sector has not been demonstrated empirically, this possibility merits little attention [Kao *et al.*, 1964; Schultz, 1964, pp. 53-70; Hagen, 1963, pp. 296-302; Myrdal, 1968, pp. 2041-61].

Therefore, in economies where most food supplies come from crop production, migrants move fairly long distances, and men migrate only in the slack cropping season (or do no agricultural work except clearing land), the impact on *per capita* food supplies is almost certainly positive. In other cases the probable impact of migration on *per capita* food supplies available cannot be established on *a priori* grounds.

If migration increases *per capita* food consumption and if labour productivity has been limited by either under- or mal-nutrition, the migrant's absence will have a positive effect on the productivity of labour in his home area. At present, we do not know, and cannot determine, to what extent labour productivity is limited by inadequate nutrition in developing countries. Data are too scanty and unreliable to demonstrate, as is often claimed, that the productivity of labour in developing countries is generally limited by *per capita* food consumption [Farnsworth, 1961, pp. 179–201], but, at the same time, the kinds of data available are also too weak to demonstrate that the opposite is generally the case. Moreover, even if total *per capita* food supplies are generally adequate, they may be poorly distributed over the year or short enough some years to affect productivity. The relatively dry savannas—which in tropical Africa and Brazil, at least, are the supplying areas involved in much of the flow of migrant labour—are subject to sporadic food shortages just before the beginning of the cropping season [Torres, 1957, pp. 145–56; Grove, 1952, p. 19; Haswell, 1953, p. 25; Richards, 1939; Huntingford, 1950]. If the absence of migrants in such areas increases *per capita* food supplies it serves to reduce the probability that productivity will be low because of poor nutrition in the seasons following a short crop.¹

(e) *Effects if real wages change in supplying areas*

So far we have discussed the impact on the home economy of migrants' absence in terms of direct effects on output and productivity. In addition, migration may influence output and productivity indirectly through its effects on wages and prices. If the exodus of migrant labour reduces the wage-earning labour force—because, say, migrants are attracted by higher wages elsewhere and there is insufficient unemployed labour with the same skills to replace them—there will be pressure for money wages to increase in the supplying area. Whether or not real wages also rise depends on how migration affects output and therefore prices of final goods and services. As we have seen, it is impossible to predict *a priori* how migration will affect *per capita* supplies of foodstuffs—a major item in the budgets of

¹ Another way productivity may increase is by use of remittances to purchase productivity-increasing capital goods and new knowledge transmitted home by migrants before they return.

low-income households; the same may be said of food prices. If real wages do rise, they may serve as a brake on the rate of growth by reducing the incentive to invest. They may also stimulate technological change, however, by encouraging adoption of labour-saving techniques and, in so far as wage earners have a relatively high propensity to save, the increase in real wages may increase the supply of savings for investment in new techniques. Conversely, if real wages fall, as is likely if agricultural output is adversely affected by migration, we would expect the opposite effects.

(f) Other effects

Thus far we have discussed the impact of the migration of individuals. The total costs or benefits to a given community supplying migrants may be greater than the sum arrived at by adding together the costs and benefits associated with each migrant. For instance migrants may contribute to the spread of disease. To take another example, a village or hamlet losing only one migrant may suffer little loss of morale—indeed, if he is generally a trouble-maker, the morale may increase substantially—but if it loses half of the able-bodied men, it is easy to imagine a substantial drop in the community morale and some negative effect on productivity, even if the men absent would have been idle had they not migrated [Richards, 1939, pp. 404–5]. On the other hand, several migrants travelling together may be able to share housing and economize in other ways with the result that any savings remitted are larger. Obviously, the direction and magnitude of such external effects will vary from one situation to another.

B. Effects after return of migrants

The most important ways in which returning migrants contribute to the supplying economy are the spread of new techniques, accumulation of capital, and changes in consumption expectations and horizons.

(g) Spread of new techniques

The experience of the migrant labourer in the host economy can lead to the spread of new techniques in several ways. It may not only expose him to new methods, but, by widening his consumption horizons and spreading the gap between his desired and realized levels of living, strengthen his incentive to try new methods. In other cases his experience may be important merely in assisting in the accumulation of savings needed to implement changes in technique already planned before migration.

Where exposure to new techniques is involved, the impact on development is likely to be largely dependent on the similarity of conditions in the host and supplying economies. If the principal economic activity in the home economy is small-scale agriculture, returning migrants are less likely to be agents of technical change if they have worked in mines, in

the construction industry, or in processing or manufacturing,¹ than if they have been employed in agriculture. If they do work in agriculture, those working on plantations are likely to see less that is transferable than if they work in small- or medium-scale agriculture.

Also important whether migrants work in agriculture or not—but more important if they do—is the similarities of climate in the supplying and host economies. A large proportion of technology in agriculture is physical environment specific and if physical environments are greatly different there may be little that is transferable. Thus the potential transfer of technology by Mexican migrants from the arid state of Sinaloa in northern Mexico working in nearby Arizona or southern California is much greater than it would have been had they instead worked in the apple orchards of Washington or the cranberry bogs of Wisconsin. The cocoa zones of Brazil and West Africa attract both migrants coming from nearby areas suitable for cocoa and other crops of the humid forest and those coming from extremely arid zones where almost none of the crops of the cocoa zone can be grown² [Boutillier, 1960; Raulin, 1957; Prothero, 1958; Ardener *et al.*, 1960; Rouch, 1956; Hill, 1963; and survey cited in p. 90, n. 1 above].

Even where differences in the physical environments of the supplying and host economies are such that there is little or no transfer of technology that is physical environment specific, there is likely to be some technology that is not physical environment specific. Certain skills, such as carpentry and masonry, and a good deal of equipment fall in this category. Bicycles, scooters, cars, trucks, spraying equipment, pumps, and grinding mills, for example, can substantially increase agricultural productivity and are employed much the same over a wide range of physical environments.

(h) *Accumulation of capital*

An important impact of labour migration is the accumulation of physical capital out of savings remitted or taken with the migrant when he returns

¹ Kindleberger seems to be making the same point when, citing a study by Ingrid Semmingsen [Semmingsen, 1961, pp. 42-5 and 52], he draws attention to the fact that Norwegian migrants working in agriculture in the United States were much more innovative when they returned home than were Italian peasant workers working in industry in the United States [Kindleberger, Sept. 1965, p. 250]. Robert E. Baldwin makes a similar point in his export technology hypothesis [Baldwin, 1966, ch. 3]. Part of his argument—that export industries characterized by technology that is readily transferable elsewhere in the economy make a considerably greater contribution to economic development—can be extended to analysis of the role of migrant workers as agents for spreading new technology.

² For tropical Africa, at least, there is evidence that travellers, some of whom were clearly migrant workers, not infrequently introduced new agricultural enterprises, such as new crops, or more productive versions of old enterprises, e.g. new breeds or varieties and sometimes new tools [see Drachoussoff, 1947, pp. 798-806; Tisserant, 1953, p. 230; Richards, 1939, pp. 322-3; Anon., 1912, p. 646; Tharin, 1915, p. 149; Hill, 1963, appendices to ch. 1; Berry, 1967].

home. Savings are likely to be high for migrants, compared with what they would save at home, both because incomes are higher and because migrants make greater efforts to limit consumption.

In so far as workers move for economic reasons, the fact that they migrate means they expect to get higher incomes than at home. The fact that they migrate also means that their expectations are largely realized. If expectations of a sufficiently large proportion of migrants are not realized, they—and those who hear of their experience—will not continue to migrate. They are also likely to work harder in order to reduce the time required to meet their savings goals. If they have a target, the sooner they reach it, the sooner they can return home.

How much a migrant will save depends on wage rates, the level of unavoidable expenses while he is away from home (including transportation costs) and his propensity to save. The proportion of savings actually invested will depend on a number of other variables, such as opportunities to invest, pressure to share gains from migration with kinsmen, and education.¹

Data on the propensity of migrants to save are fragmentary, but there is some evidence that migrants have a much higher propensity to save than the average for their home communities. Calculations by Richard Hancock suggest that Mexican migrants are able to take or send home at least 55 per cent of what they earn while in the United States—and he says that he deliberately based his calculations on assumptions that would likely lead to an underestimation of savings [Hancock, 1959, p. 37]. An unusually detailed survey of the budgets of migrants in west Cameroons showed that about a fifth of the sample surveyed saved at least 25 per cent of their incomes each month, often saving so much that they could not afford an adequate diet [Ardener *et al.*, 1960, p. 181; cf. Gulliver, 1955, p. 21; Schapera, 1947, p. 159; Skinner, 1965, p. 68]. Even if migrants typically save only half of what these examples suggest, their rate of saving is still much above that usually assumed for the general population in developing countries.

Whether or not there is accumulation of physical capital, each of a given migrant's sojourns away from home will result in some net addition to the supplying economy's potential human capital if either the amount of skill gained while in the host economy is greater than he would have gained had he not migrated, or if the kind of skill he learns contributes more to the supplying economy's development than skills he would have learned by

¹ In a survey of villages in the Northern Province of Nyasaland, in 1939, Margaret Read found that in areas where a relatively high proportion of the adult males had completed primary school, there was a greater tendency to invest migrants' remittances in durable goods and productive equipment—such as milk separators and building materials [Read, 1942, p. 630].

not migrating.¹ And as with transfer of new technology, the impact on development of the supplying economy will be greater the greater the similarity of the economic activity open to him in the host and supplying economies. Migrants gaining skill in working with machinery represent no net addition of human capital if they return to a home area where hoe culture still prevails and there is no machinery of any kind. Even so, they represent potential human capital which can be utilized as soon as machinery is introduced. Any net increment in skill learned by migrants is likely to be to some degree transferable, and therefore eventually of some use to the supplying economy.

The acquisition of skills by Puerto Ricans while working in the United States is perhaps the best documented example of the gain in human capital that can result from migration. José Hernández Alvarez concludes in a recent study of returned migrants in Puerto Rico that 'Many have taken advantage of opportunities becoming available as a result of modernization, resuming life in Puerto Rico under favourable circumstances—as professionals, white-collar workers, and highly skilled technicians' [Alvarez, 1967, p. 104]. His analysis of 1960 census data shows that the proportion of professionals, managers, and clerical workers among returned migrants is almost half again higher than for the employed population of Puerto Rico generally [Alvarez, 1967, p. 48].²

(i) *Changes in consumption expectations and horizons*

Migrants, those with whom they share their gains from migration, and those of the supplying economy who are in a position to observe the changes in consumption resulting from the migrant's sojourn in the host economy, are all likely to experience some increase in the gap between their desired and realized levels of living. It is likely that both an increase in the level of consumption within options available in the past, and discovery or development of new options will result.

Whether or not the home economy actually consumes more (or different) goods depends largely on how migration affects income. If total income of the migrant's household increases as a result of his trip to the host economy, the household can afford luxuries to which it is unaccustomed. If the total

¹ In addition to providing new services, such as carpentry or motor repair, in the home economy, it has been suggested that returned migrants take a new attitude toward farming, regarding it as a potentially commercial activity, which leads to better organization of farming activities and/or greater interest in cultivating crops for sale [Elkan, 1960, p. 130; Ardener *et al.*, 1960, p. 331]. Barlow and Crowe emphasize the importance of the acquisition of skills needed for modern cotton production by Mexicans who had worked as migrants in the United States in explaining the dramatic five-fold increase in cotton exports and the more than doubling of cotton yields in Mexico between 1948 and 1956 [Barlow and Crowe, 1957, pp. 2, 3, and 35].

² It is not clear from the data whether these differentials can be explained in part by a greater propensity of skilled workers to migrate. However, the differentials are large enough that it seems likely that acquisition of skill while abroad must be part of the explanation.

income of the household falls as a result of the migrant's trip—because, say, the fall in home production is not offset by the migrant's savings—the adjustment must be made largely in the household's food consumption. The migrant may still return with gifts, and whether he does or not he is almost certain to tell of exotic consumer goods he saw while away, even if he was unable to send or bring any of them home, and his tales are likely to stimulate his friends and relatives to increase their incomes in the long run.

C. Effects of emigration

To the extent that the migrant's experiences in the host economy induces him to emigrate, there is a set of negative effects on the supplying economy which must be taken into account. The longer the absence of the migrant the more probable it is that home production will fall, as we have seen. There is a reduction in the number of individuals who are likely to contribute to adoption of new technology; a loss of both existing and potential human capital; and probably a loss of physical capital since emigrants are likely to make the bulk of their investments close at hand—i.e., in the host economy. If any of the migrants who settle in the host economy are entrepreneurs—which seems highly likely, as a number of empirical studies suggest that it is usually the more dynamic members of a community that are the first to leave [Chen, 1968; Adams, 1968; Flin, 1966, pp. 30–4; Randall, 1962, p. 78; United Nations, 1953, ch. XVI]—the supplying economy suffers a loss of entrepreneurial talent, the supply of which always appears short of what is needed for rapid economic growth in developing countries. Finally, consumption expectations and horizons are likely to be expanded less rapidly than they might have been and the level of consumption expenditures may likewise be below what they would have otherwise been.

The supplying economy loses not only the migrants who settle in the host economy, but also any of their dependents who join them. This loss of population may also serve to reduce the birth-rate, because, say, many of the emigrants are young men. A reduction in the birth-rate may have either a positive or negative effect on economic development, depending on how high the birth-rate is and the pressure of population on resources. The supplying area may also suffer a reduction in its capacity to raise revenue through taxation, especially if the emigrants cross national boundaries. There may also be a partially offsetting reduction in the demand for government services, but this is by no means certain. Population losses associated with resettlement of migrant labourers could create enough social and economic problems that there would be strong pressure for an increase in government expenditures.

On the other hand, emigrants often retain ties with their home societies and may continue to contribute to economic production or welfare there although they personally never return. Large remittances are widely reported [Randall, 1962, p. 76; Roberts and Mills, 1958, p. 125; Hill, 1963, ch. 7; Plotnicov, 1967, *passim*; Dupire, 1960, p. 117; Ardener *et al.*, 1960, pp. 182-4; Van Velsen, 1960, pp. 272-3].¹ Moreover, permanent communities of emigrants may provide greater economic opportunities for temporary migrants from their own community. For example, Hausa cattle and kola landlords operating outside their home economies in Western Nigeria provide lodging, credit, and commercial contacts for their kinsmen engaged in these forms of trade, and have undoubtedly contributed to the growth and profitability of these trades [Cohen, 1965 and 1966; cf. Rouch, 1956].

III. The impact on the host economy

Students of migration usually state that the principal economic effect of in-migration is an increase in the supply of unskilled labour in the receiving area, which helps to keep down wages and to facilitate increased output [Berg, 1965, pp. 163-4; Kindleberger, July 1965, p. 647; Chen, 1968, p. 45; Elkan, 1960, pp. 94-5; Lux, 1962, pp. 109-10; Richards, 1954, ch. 2; Randall, 1962, p. 78; Houghton, 1960, *passim*]. The effect on output of a larger supply of unskilled labour is, of course, unambiguously positive only if the total supply of labour does not exceed the demand. If it does, unemployment will result and part of the host economy's output may be absorbed in maintaining unproductive workers—a problem which is considered serious in some African urban areas [Caldwell, 1967; Lux, 1962, ch. 10]. Increased population density and unemployment may have other, less direct effects on the host area, which have also received considerable attention in the literature. Indigenous workers may object to having their wages held down and this may lead in turn to demands for government restrictions on immigration, to inflationary upward pressures on wages, or to social conflict directed at immigrant groups which may disrupt economic activity [Lerner, 1958; Rouch, 1956; Dupire, 1960; Richards, 1954].

In addition, however, the movement of economically productive individuals into an area may have several economic effects other than an increase in the supply of unskilled labour. For one thing, even in low income societies migrants are not all unskilled: many have had previous experience as farmers, traders, or craftsmen, which affects their potential productivity

¹ In Jamaica remittances from migrants in the United Kingdom were large enough in 1962 to alleviate substantially balance-of-payments problems, covering 43 per cent of the visible trade deficit [Tidrick, 1966, p. 30].

in the host area.¹ In addition, some migrants are likely to add to the receiving economy's supply of entrepreneurial talent and may perceive and exploit opportunities for increased production more readily than some people indigenous to the host area. Migrants may bring new productive techniques to the host economy as well as transfer technical knowledge in the other direction; similarly, they may choose to invest their savings in the host area if returns are higher there than at home, thus increasing aggregate investment in the host economy. And finally, the flow of migrants into a region may induce several types of productive activity or decision-making other than those in which they are directly engaged. Since none of these effects has been widely recognized or discussed in the literature, we shall elaborate on them here.

A. The supply of human capital

Although it is probably true that a large proportion, if not a majority, of migrant labourers in developing countries work primarily in agriculture while away from home, it does not follow either that the numbers engaged in other occupations are negligible, or that those employed in agriculture do not bring useful skills which represent significant additions to human capital. African workers, including migrants, move easily and frequently from one occupation to another. A man who says his 'main' occupation is farming may also be engaged in trade, handicrafts, or the provision of various services. Migrants often move from one productive activity to another, even in the course of a single trip [Rouch, 1956; Davison, 1957; Caldwell, 1967; Richards, 1954, p. 139; Houghton, 1960, p. 180]. Therefore, even if a migrant's previously acquired agricultural skills are not easily transferred to his new area of employment, his commercial knowledge and contacts or his skills as a craftsman may increase his potential contribution to output in the host economy. For example, merchants from the interior (Hausa merchants in southern Nigeria and Ghana and the so-called Dioula traders in the Ivory Coast, Ghana, Guinea, Sierra Leone, and Liberia) have contributed to the development of trade both within and between savanna and coastal areas for a long time [Cohen, 1965, and 1966; Dupire, 1960, pp. 101-18; Charbonneau, 1961, pp. 115-20; Rouch, 1956, p. 94].

Migrants may also contribute to agricultural development in the host economy, not only by increasing the available supply of labour but also by enlarging the supply of skills and entrepreneurial ability. Despite much that has been written about the 'communal' and 'non-commercial' nature of African systems of land tenure, enterprising migrants have frequently acquired long-term rights to use land in the host area and have become

¹ In a survey of migrants in Sokoto Province in northern Nigeria in 1952/3 Prothero found that over half the people leaving their home community in search of employment described themselves as seeking some form of skilled occupation [Prothero, 1958, pp. 29-30].

prosperous farmers, sometimes even leading indigenous farmers in the development of new cash crops [Hill, 1963; Dupire, 1960, *passim*; Richards, 1954, chs. 1 and 5; Raulin, 1957; Rouch, 1956, p. 95; Le Moal, 1960, pp. 448-9; and Powesland, 1957, p. 62]. In some areas, migrants have taken over certain specialized functions in agriculture, releasing indigenous workers and entrepreneurs for other occupations. Urhobo from the Niger Delta area, for example, lease oil palm groves from their Yoruba owners and collect and process the fruit. Yoruba have largely abandoned this type of activity in favour of growing cocoa or other, more profitable lines of work [Lloyd, 1962, pp. 178-9; Galletti *et al.*, 1956; cf. Barbour, 1965; Elkan and Fallers, 1960].

B. The supply of complementary factors

The inflow of economically productive individuals not only changes the supply of human resources in the host economy, but may affect the supply of other productive factors as well. If average population density in the host economy is not great, an influx of migrants into the agricultural sector may serve at first to open up new areas for cultivation, either because the migrants themselves become farmers, clearing and planting new land, or because indigenous farmers employ migrant labourers on their existing farms and devote their own energies to establishing new ones. On the other hand, a continued increase in the labour/land ratio may eventually lead to land scarcity.¹

Migrants who accumulate savings may choose to invest them in the host economy rather than at home. Migrants who clear and plant new lands, whether on their own account or for a local employer, are clearly engaging in capital formation. Other examples of investment by immigrants include (a) the accumulation of working capital, construction of stores, etc., by migrant traders; (b) purchases of vehicles to transport goods and people within or beyond the host economy; (c) establishment of service or manufacturing concerns.

C. Induced effects

Studies of labour migration frequently emphasize the social problems created by the presence of large groups of strangers in the host area. If the inflow of migrants significantly increases the demand for available consumer goods (e.g. food, clothing, and shelter) or public services (such as

¹ Elizabeth Colson has suggested that this will reduce or even reverse the inflow of migrants to the original host economy [Colson, 1960, pp. 65-6]. Her conclusion seems warranted only if (a) most migrants settle in the host economy—if they continue to return home periodically and do not acquire land in the host area, a shortage of new land may simply stabilize the flow of migrant labour—and (b) there are few employment opportunities in the host economy outside of agriculture. Dioula planters in southern Ivory Coast have, for example, avoided this problem by using their savings from cocoa and coffee farming to establish commercial or manufacturing enterprises in urban areas, rather than investing in new farms [Dupire, 1960, pp. 107-8].

water, electricity, police protection, medical and educational facilities), the result may be overcrowding, shortages, and rising prices. Such occurrences may have unfavourable effects on economic development, not only directly (through inflation and short-run deteriorations in the level of living) but also indirectly, through heightened social and political tension. The possibility of such tension is especially great when the migrants are easily identifiable by ethnic origin or some other cultural or racial characteristic. As was mentioned above, social tension and conflict may detract from economic progress, either by generating attempts to limit the geographical or occupational movement of migrant labourers and entrepreneurs, or by producing violent conflict which destroys or disrupts economic activity. Consequently, many authors have concluded that the external effects of migration on the host area are likely to be unfavourable, economically as well as socially.

On the other hand, there are many areas in which relations between indigenous and immigrant groups are not unbearably strained and where the presence of strangers may have had some favourable indirect effects on economic development. The demands of immigrant groups for goods and services may stimulate or induce both private entrepreneurs and public authorities to provide them, by expanding output or investment or both. This kind of process has been more generally described by Hirschman, who argues that increases in demand which press on bottlenecks in an economy's productive structure tend to induce economic decision-making and investment which would not otherwise occur [Hirschman, 1958, pp. 24-8]. If he is correct, a certain amount of imbalance between demand and supply of the sort that accompanies an influx of migrants contributes to an acceleration in the rate of economic development.

There are various examples of positive external effects of migration. In some areas, local producers have attempted to compete with immigrants rather than to restrict their activities. Polly Hill cites the active role played by migrant farmers in stimulating other groups to take up cocoa farming in southern Ghana [Hill, 1963]. Moreover, public authorities may make positive changes in policy or public services in response to immigrants' activities. According to Audrey Richards, the British authorities gave up trying to recruit forced labour for European planters in Uganda because African cotton growers managed to undersell European farmers anyway. The development of cotton growing in Uganda was greatly facilitated by immigrant labour from Ruanda-Urundi and Tanganyika [Richards, 1954]. In short, whether migration is indirectly favourable or unfavourable to economic development in a particular host economy depends on a number of factors, both economic and non-economic, which vary from one community to another.

Finally, in some areas migrants may induce others from their own home areas to migrate also, thus further increasing the flow of labour and human capital into the host economy. The earliest migrants from any community will of course, return home with information about employment opportunities abroad which may encourage others to seek them out. In some cases, however, the inducements are even stronger. Baule farmers who have leased land from the Agni and planted tree crops in southern Ivory Coast tend to employ their kinsmen as labourers; these labourers migrate each year to work for Baule farmers in Agni territory just as the latter originally migrated to work for Agni farmers [Dupire, 1960, pp. 128-9, 201; cf. Rouch, 1956]. Similarly, as noted above, Hausa traders have established residences in many West African commercial centres, where they receive other Hausa, feed and house them, help them establish good commercial contacts in the host community and often finance some or all of their trading activities. Thus, they have expanded and developed the distributive network linking the Hausa economies with other parts of West Africa [Smith, 1962; Cohen, 1965 and 1966; Rouch, 1956; cf. Garlick, 1967].

Conclusions

The common assumption that migrant labour is undesirable for economic as well as social reasons needs to be re-examined. The impact of migrant labour on economic development is complex and is likely to vary greatly, depending, among other things, on the characteristics of the migrant's home area and the area in which he works, and on the length of his sojourn away from home.

Areas supplying migrants are likely to benefit from net additions to both human and physical capital, from a widening of consumption expectations and horizons, and from technological change, especially after migrants return from the host economy. Whether or not these beneficial effects will be outweighed by decreases in output (due to either the reduction of labour and human capital supplies or unfavourable effects of migration) depends primarily on the extent to which migrants' absences are co-ordinated with the structure and time pattern of employment opportunities in the home and host areas. Output in the home economy is most likely to fall if experience in the host economy leads a sufficiently large proportion of migrants to settle there permanently.

Areas receiving migrants are most likely to benefit from low wages, development of unused resources, and spread of new technology. They may also gain entrepreneurs and additions to physical capital, especially if some migrants settle permanently. Migrants may contribute to development problems by increasing inflationary pressures or by adding to social

and political tensions,¹ but their presence may also serve to stimulate production and investment in both the public and private sectors which would not otherwise have occurred.

University of Wisconsin and Indiana University

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¹ Whenever economically significant political boundaries are crossed, there may be additional economic effects—mentioned but not analysed in this paper—through changes in the capacity of governments to raise revenue and changes in the demand for public goods and services, but how important these are will depend considerably on the institutions of the areas affected by migration.

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